Bedrock Geology of the Tait Lake Quadrangle, Cook County, Minnesota

Description of Map Units

**Lake Superior Basalt** - Diabase marker bed consisting of basaltic andesite to andesite. Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. The basalt is porphyritic and moderately to strongly magnetic. Contains 1% to 7% plagioclase phenocrysts and 1% to 5% olivine phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.

**North Shore Volcanic Group**

- **Mesoproterozoic** - The North Shore complex consists of nearly identical members with a Pb/238U age of 1.1 billion years. Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. Contains 1% to 7% olivine phenocrysts and 1% to 5% quartz phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.

**Intrusive Bodies** - See descriptive notes below.

**Contact** - Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. Contains 1% to 7% olivine phenocrysts and 1% to 5% quartz phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.

**Foliation** - Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. Contains 1% to 7% olivine phenocrysts and 1% to 5% quartz phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.

**Cross Section of Tait Lake Geology**

- **Rhyolite** - Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. Contains 1% to 7% olivine phenocrysts and 1% to 5% quartz phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.

**Biotite Diorite** - Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. Contains 1% to 7% olivine phenocrysts and 1% to 5% quartz phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.

**Magnetite** - Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. Contains 1% to 7% olivine phenocrysts and 1% to 5% quartz phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.

**Granitic Intrusions** - Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. Contains 1% to 7% olivine phenocrysts and 1% to 5% quartz phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.

**Contact Intrusions** - Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. Contains 1% to 7% olivine phenocrysts and 1% to 5% quartz phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.

**Magnetic Inferred Contact** - Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. Contains 1% to 7% olivine phenocrysts and 1% to 5% quartz phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.

**Contact Inferred Contact** - Contains plagioclase phenocrysts ranging from 0.5 to 1 cm in size. Contains 1% to 7% olivine phenocrysts and 1% to 5% quartz phenocrysts. Contains 0.5 to 1 cm clots of quartz in concentration from a few percent to 50%.